

Process and apparatus for producing oxidic nanocrystals

Abstract:

The present invention relates to a process for producing oxidic nanocrystals, the process comprising the following steps:

- a) Introducing host lattice ions as metalorganic complexes or volatile inorganic compounds into at least a first vaporizer,
- b) Converting the complexes or compounds into the gas phase and
- c) Transporting the resultant gas phase, with the aid of one or more carrier gases and/or carrier gas mixtures, into at least one heating zone of at least one reactor, and supplying one or more reaction gases and/or reaction gas mixtures, and
- d) Breaking down the complexes or compounds in the heating zone of the reactor at a pressure of between 1 - 1000 mbar, the oxidic nanocrystals being formed immediately, and
- e) Collecting the oxidic nanocrystals at at least one adsorption trap.

The invention also relates to an apparatus for producing oxidic nanocrystals.

Fig. 1